A NEW SPIDER OF THE GENUS ARCUPHANTES (ARANEAE: LINYPHIIDAE) FOUND IN KOREA

Ву

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In the present paper the author would like to describe one new species belonging to the genus *Arcuphantes* which has not been recorded from Korea. The type of new species is deposited in the collection of the Kyungpook University, Taegu, Korea.

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Arcuphantes scitulus n. sp.

(Figs. 1-10)

Measurements (mm).

FEMALE (holotype): Body length 2.74; carapace length 1.08, width 0.86; sternum length 0.61, width 0.59; endite length 0.31, width 0.20; labium length 0.10, width 0.20; cephalic width 0.54; anterior eye row 0.39; posterior eye row 0.41; abdomen 1.86, width 1.22. Leg I 1.59+0.34+1.66+1.47+0.97-5.94, II 1.44+0.34+1.44+1.31+0.81-5.25, III 1.19+0.31+1.06+1.00+0.63-4.13, IV 1.53+0.31+1.41+1.31+0.74-5.22. Palp 0.25+0.10+0.16+0.35-0.86.

MALE (paratype): Body length 2.65; carapace length 1.30, width 1.03; sternum length 0.63, width 0.68; endite length 0.34, width 0.25; labium length 0.13, width 0.20; cephalic width 0.69; anterior eye row 0.43; posterior eye row 0.43; abdomen length 1.52, width 0.93. Leg I 1.78+0.33+1.93+1.78+1.03=6.80; II 1.59+0.33+1.63+1.53+0.88=5.88; III 1.30+0.30+1.20+1.17+0.68=4.57; IV 1.68 +0.30+1.65+1.58+0.83=5.96, Palp 0.58+0.15+0.13+0.68=1.54.

Description.

FEMALE (holotype): Carapace yellowish brown, suffused with black, and with darker striae and sides; longer than wide, the index is 80. Ocular area protruding. Clypeus 2.6 times the diameter of AME, and less than the length

of MOQ: concave immediately below eyes and slightly slanting forward. Cephalic width index is 63. AER straight in frontal view, but recurved in dorsal view; PER recurved. AER shorter than PER; eye row index is 94. Eye area index is 76. AME smallest, PME largest. Eye ratio, AME < ALE =PLE<PME (5:7:7:8). Eyes on black spots. AME separated from each other by slightly less than their radius (2:2.5), from laterals by slightly less than their diameter (4:5). PME separated from each other by their radius, from laterals by less than their radius (3:4). MOQ border than long (19:17), narrowed in front (19:11). Chelicerae yellowish brown, armed with 3 stout promarginal teeth and 5 small retromarginal teeth, and with two spines on prolateral face of each. Chelicerae with stridulating file. Labium and endite yellow-brown, suffused with black, pale tipped. Labium remarkably wider than long, the index is 200. Endite index is 65, endite converging index is 50. Sternum black, bearing long black hairs; convex, widely protruded between hind coxae; longer than wide, the index is 97. Legs yellow-brown, each with four dark annulations, one on femur and three on tibia. Leg formula, 1, 2, 4, 3. Leg formular index are 100, 88, 69, 87. Tm I 0.19 (9/47). Tibia I 1/d 13 (53/4). The spination is as follows:

		Dorsal	Prolateral	Retrolateral	Ventral
Fem.	1	0	0-1-0	0	0
	2-4	0	0	0	0
Tib.	1	1–1	0-1-0	0-1-2	0
	2	1-1	0	0-1-0	0-1-0
	3-4	1-1	0	0	0
Meta.	1-3	1-0	0	0	0
	4	0	0	0	0

Abdomen oval, rather pointed posteriorly; black, with gray and white patterns on dorsum as illustrated in Fig. 1. Abdomen index is 66. Epigynum as illustrated in Figs. 2, 3 and 4.

MALE (paratype): Carapace index is 79. Clypeus about twice the diameter of AME. Cephalic width index is 67. AER procurved in frontal view, PER recurved. AER shorter than the PER, eye row index is 94. Eye area index is 65. Eye ratio, AME<PME=PLE<ALE (7:8:8:9). AME separated from each other by one-seventh their diameter, from laterals by about their radius. PME separated from each other by their radius, from laterals by slightly less than their radius. MOQ slightly broader than long (20:19), narrowed in front (20:12). Chelicerae stouter than that of female, both

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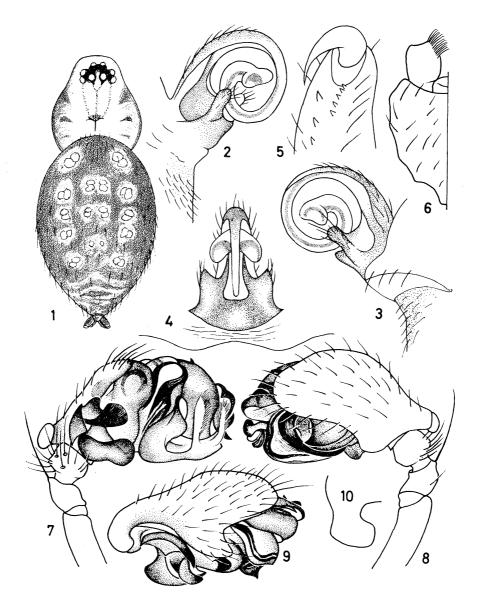


Fig. 10. Arcuphantes scitulus n. sp. Fig. 1. Female, dorsal view. Figs. 2-4.
Epigynum. 2. Slightly oblique view. 3. Lateral view. 4. Ventral view.
Fig. 5. Right chelicera of female, inner view. Fig. 6. Sternum, endite and labium of female. Fig. 7. Male palp, right, ectal view. Fig. 8.
Same, inner view. Fig. 9. Same, ventral view. Fig. 10. Hook at the dorso-mesial base of right cymbium.

margins armed with a very strong tooth respectively; with stridulating file. Labium index is 160. Endite index is 74, endite converging index is 47. Sternum broader than the length, the index is 108. Leg formula, 1, 4, 2, 3. Leg formular index are 100, 86, 67, 88. Tm 0.19 (17/90). Tibia I 1/d 19 (95/5). Abdomen index is 61. Male organ as illustrated in Figs. 8, 9 and 10.

Etymology. The specific name is a Latin adjective meaning "pretty". Diagnosis. Present species is similar to Arcuphantes yamakawai (OI, 1960). But it can be easily distinguished from the latter in the following points.

- (1) The distal end of epigynal projection expanded laterally.
- (2) The basal portion of epigynal projection with a thumb-like projection on both side.

References

- CHAMBERLIN, R.V. & W. IVIE, 1943. New genera and species of North American linyphiid spiders. *Bull. Univ. Utah*, **33**(10): 1-39.
- LOCKET, G.H. & A.F. MILLIDGE, 1953. British Spiders. Vol. 2, Pp. i-vi+1-449, figs. 1-254. London, Ray Society.
- OI, R., 1960. Linyphiid spiders of Japan. J. Inst. Polyt., Osaka City Univ., Ser. D, 11: 137-244, pls. 1-26.
- ———— 1964. A supplementary note on linyphiid spiders of Japan. J. Biol., Osaka City Univ., 15: 23-30, pls. 1-3.
- Paik, K.Y., 1965a. Taxonomical studies of linyphiid spiders from Korea. Educ. J. Teachers Coll., Kyungpook Univ., 3: 58-76, figs. 1-29.
- Wiehle, H., 1956. Spinnen oder Arachnoidea (Araneae), 28 Famillie Linypniidae—Baldachinspinnen. *Tierwelt Deutchl.*, 44: I-VIII, 1-337, figs. 1-551. Jena.

摘 要

Arcuphantes 属の一新種 A. scitulus を韓国から記載した。本種は一見して日本産の A. yamakawai (OI, 1960) に似ているが、epigynum の突出部の末端が鼻翼状に左右に膨出して居り、又突出部の基部両側に拇指状突起がある点で容易に識別される。因に Arcuphantes 属は CHAMBERLIN, R.V. & W. LEVIE (1943) によって創設されたもので、これが韓国から報告されるのはこれが初めである。尚、Fusiphantes OI, 1960 は本属の synonym である。